

NOV 09 2007

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

**Amendments To The Claims**

The listing of claims presented below will replace all prior versions, and listings, of claims in the application.

**Listing of claims:**

30. (currently amended) An injectable reversible contraceptive comprising a contraceptive polymer, a solvent medium, an electrically conducting material and a magnetic material, characterised in that said contraceptive polymer is from the hydrogel class of polymers, which essentially comprises mixture of styrene maleic anhydride copolymer and styrene maleic acid copolymer, and said solvent medium is dimethyl sulphoxide solvent, and said electrically conducting material which is used for the purpose of restoring fertility by removing the contraceptive by heating with electromagnetic induction with fields from outside the body, which in-turn causes lowering in viscosity of said contraceptive to facilitate the reversal thereof is copper essentially consisting of microsize particles and macrosize particles, and said magnetic material which is used for the purpose of *in vivo* detection, *in vivo* quantification, *in vivo* control of flow and enhanced removal of contraceptive by an external traveling magnetic field is iron essentially consisting of microsize particles and macrosize particles.

31. (currently amended) A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein styrene maleic acid copolymer and styrene maleic anhydride copolymer are taken in the ratio varying between 1.5:8.5 to 3:7 with respect to each other.

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

32. (currently amended) A contraceptive claimed in claim ~~[[55]]~~ 30, wherein said magnetic material is one of iron in its pure form, as at least one of in the form of its of an iron oxide, [[and]] or in a combination with a biologically accepted material, like such as sulphur ~~essentially consisting of microsize particles and macrosize particles.~~

33. (currently amended) A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein said electrically conducting material and said magnetic material are each, being independently, between 3 to 20% by weight of said contraceptive polymer.

34-35. (canceled)

36. (currently amended) A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein the particle size of said microsize particles of said electrically conducting material is about 0.005 to 20 micron, and of said macrosize particles of said ~~electrically~~ electrically conducting material is about 150 micron to 0.2 mm.

37. (currently amended) A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein particle size of said microsize particles of said magnetic material is about 0.005 to 15 micron and of said macrosize particles of said magnetic material is up to 0.5 mm.

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

38. **(currently amended)** A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein said microsize and macrosize particles of said electrically conducting material are taken approximately in equal amounts by weight.

39. **(currently amended)** A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein said microsize particles of said magnetic material are taken in a lower amount as compared to said macrosize particles of said magnetic material.

40. **(currently amended)** A contraceptive as claimed in claim ~~[[55]]~~ 30, wherein for every 100 mg of said contraceptive polymer about 200  $\mu$ l microliter of said solvent is taken.

41-44. **(canceled)**

45. **(currently amended)** A contraceptive as claimed in claim ~~[[55]]~~ 30, characterised in that the *in-situ* flow of the contraceptive after injection is controlled by external means by the application of a drag force or a propelling force by means of an external magnetic field.

46. **(currently amended)** A contraceptive as claimed in claim ~~[[55]]~~ 30, characterised in that the presence of the contraceptive is detected by external means ~~and partly quantified by measuring the residual magnetic field strength from outside the body.~~

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

47. **(currently amended)** A contraceptive as claimed in claim ~~55~~ 46, characterised in that ~~an~~ said external means include imaging by ultrasound, X-ray, CAT scan, MRI and scanning electrical impedance plethysmography.

48. **(currently amended)** A process for preparation of an injectable reversible contraceptive characterised by dissolving the weighed quantities of styrene maleic anhydride copolymer, styrene maleic acid copolymer, an electrically conducting material and ~~said~~ a magnetic material in ~~said~~ a solvent medium, followed by keeping the complex solution of said copolymers, said electrically conducting material and said magnetic material in an inert environment, and shaking for about 45-50 hrs by maintaining the temperature at about 35 °C.

49. **(currently amended)** A process for preparation of a contraceptive, as claimed in claim 48 wherein said ~~magnetic material is preferably coated magnetic material~~ electrically conducting material which is used for the purpose of restoring fertility by removing the contraceptive by heating with electromagnetic induction with fields from outside the body, which in-turn causes lowering in viscosity of said contraceptive to facilitate the reversal thereof is copper essentially consisting of microsize particles and macrosize particles and said magnetic material which is used for the purpose of *in vivo* detection, *in vivo* quantification, *in vivo* control of flow and enhanced removal of contraceptive by an external traveling magnetic

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

**field is iron essentially consisting of microsize particles and macrosize particles and said solvent medium is dimethyl sulphoxide solvent.**

50. (previously presented) A process for preparation of a contraceptive, as claimed in claim 48, wherein said copolymers, and said electrically conducting material and said magnetic material are first mixed and then dissolved in said solvent.

51. (previously presented) A process for preparation of a contraceptive, as claimed in claim 48, wherein said copolymers, and said electrically conducting material and said magnetic material are directly dissolved in said solvent followed by mixing.

52. (previously presented) A process for preparation of a contraceptive, as claimed in claim 48, wherein said copolymers are first mixed and then dissolved in said solvent followed by addition of said electrically conducting material and said magnetic material.

53. (previously presented) A process for preparation of a contraceptive, as claimed in claim 48, wherein said electrically conducting material and said magnetic material are added either together or one after the other.

54. (previously presented) A process for preparation of a contraceptive, as claimed in claim 53, wherein said electrically conducting material and said magnetic material are added either together or one after the other.

Application Serial No. 09/936,952  
Reply to Office Action of May 19, 2005

PATENT  
Docket No. CU-6200

55-57. (canceled)

**58. (New) A contraceptive as claimed in claim 30, characterized in that the contraceptive is partly quantified by measuring the residual magnetic field strength from outside the body.**